

## ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

**Date/Time:** February 5, 2004/ 11:00 a.m.

**Site Contact(s):** Gary J. Carnival  
**Phone:** 303-966-2258

**Regulatory Contact:** David Kruchek  
**Phone:** 303-692-3328

**Agency:** CDPH&E

**Purpose of Contact:** Agreement on Am/Pu Ratio for T207 area and backfill authorization

### Discussion

During the initial remediation of soil around CH47-001, north of the old Tank 207 site, and subsequent confirmatory sampling, a field screen gamma spec measurement of the "B" interval on the north side of the excavation resulted in 237 pCi/g Am241. This same sample was sent to an offsite laboratory for alpha spec analysis to determine the actual Pu and Am content of the sample. The alpha spec analysis indicated 388 pCi/g Am241 and 99.3 pCi/g Pu239. This would suggest a Am241 to Pu239 ratio of roughly .25 as opposed to 5.7 and that the rad contamination present in the soil in this area is mostly Am and not Pu.

Given these data and historical evidence that the ratio can range from .25 to 1.5 in this area, David authorized the use of a ratio of 2 to be conservative and provide a higher level of confidence that the 50 pCi/g Pu239 action level will not be exceeded. David also authorized the project to backfill an excavation (at risk to the project) as long as the gamma spec measurement indicates 20 or less pCi/g Am241. When using this authority to backfill, we agreed that an information e-mail would be sent to him and Carl Spreng providing the details of the decision to backfill. If the gamma spec measurement indicates greater than 20 pCi/g Am241, a phone call discussion or an exchange of e-mails between the field project manager and the State will be completed and an agreement reached before backfilling can be initiated. We agreed that for the large excavation north of the old Tank 207 site, when remediation is complete and field screen gamma spec measurements indicate that all radiological action levels have been satisfied, ER will take confirmation samples of intervals "A", "B", and "C", on all four sides of the excavation and submit all 12 samples as confirmation samples for offsite analysis. This will provide 12 more data points that can be used to refine the Am to Pu ratio in this area.

**Contact Record Prepared By:** Gary J. Carnival

### Required Distribution

S. Bell, RFFO  
J. Berardini, K-H  
L. Brooks, K-H ESS  
M. Broussard, K-H RISS  
L. Butler, K-H RISS  
G. Carnival, K-H RISS  
N. Castaneda, RFFO  
C. Deck, K-H Legal  
R. DiSalvo, RFFO  
S. Gunderson, CDPHE

M. Keating, K-H RISS  
G. Kleeman, USEPA  
D. Kruchek, CDPHE  
D. Mayo, K-H RISS  
R. McCalister, DOE  
J. Mead, K-H ESS  
S. Nesta, K-H RISS  
L. Norland, K-H RISS  
K. North, K-H ESS  
E. Pottorff, CDPHE

A. Primrose, K-H RISS  
T. Rehder, USEPA  
S. Serreze, RISS  
D. Shelton, K-H  
C. Spreng, CDPHE  
S. Surovchak, RFFO  
K. Wiemelt, K-H RISS  
C. Zahm, K-H

### Additional Distribution

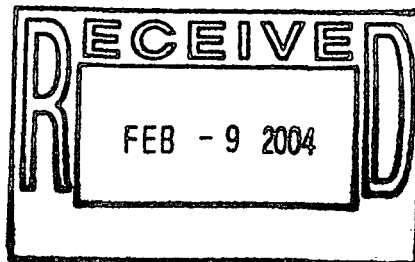
Harry Foreman, Envirocon

Contact Record 8/27/03  
Rev. 8/27/03

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CX-105-01

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ADMIN RECORD

IA-A-001965

